

WP 05-WH1810

Revision 20

Underground Transuranic Mixed Waste Disposal Area Inspections

Technical Procedure

EFFECTIVE DATE: 08/15/19

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APPROVED FOR USE

THIS DOCUMENT IMPLEMENTS TSR PAC 5.6.1, KEY ELEMENT 7-5.

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CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
19	04/03/19	<ul style="list-style-type: none">Added Designee to Steps 5.2.2 and 5.2.3
20	08/15/19	<ul style="list-style-type: none">Removed reference to 52-H-035A 13-Ton SLB2 Handler in Attachment 2. DSA Rev 6a Page Change 002a: <ul style="list-style-type: none">Removed SAC 5.5.8 and replaced with KE 7-5.Added Step 4.2 prerequisite action.Added step to Attachment 1 to ensure CMA is operating in active panel.

1.0 INTRODUCTION

1.1 PURPOSE

This procedure provides guidance for performing inspections of U/G TRU mixed waste disposal areas.

Performance of this procedure, or selected sections of the procedure, implements inspection requirements of the HWFP relative to the scope of, and as defined in, this document. Unless otherwise noted, this procedure is performed by Waste Handling personnel

1.2 SCOPE

This procedure specifies HWFP preoperational inspection requirements.

1.3 RECORDS

Records generated are handled per departmental RIDs. Performance of this procedure generates the following records:

- Attachment 1, Preoperational Underground TRU Mixed Waste Disposal Area Inspections
- Attachment 2, Preoperational Waste Handling Mode Checklist

2.0 REFERENCES

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
40 CFR 264, Subpart I, Use and Management of Containers	✓		
40 CFR 264.15, General Inspection Requirements	✓		
40 CFR 761, Subpart C, Marking of PCBs and PCB Items	✓		
DOE/WIPP-07-3372, Waste Isolation Pilot Plant Documented Safety Analysis	✓		
DOE/WIPP-07-3373, Waste Isolation Pilot Plant Technical Safety Requirements	✓		(\$)
ESS-2017-02, Evaluation of the Safety of the Situation – Combustible Liquids Temporarily Stored in Proximity to Waste Containers in the Underground	✓		(\$)
Hazardous Waste Facility Permit, Waste Isolation Pilot Plant, Permit No. NM4890139088-TSDF	✓		(\$)

DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
00CD-0001, WIPP Mine Ventilation Plan	✓		
WP 04-AD3001, Facility Mode Compliance	✓		
WP 04-AU1007, Underground Openings Inspections		✓	
WP 12-IH1022, Sampling for Waste Generated VOCs		✓	
WP 13-1, Nuclear Waste Partnership LLC Quality Assurance Program Description	✓		
WP 15-GM1002, Issues Management Processing of WIPP Forms		✓	
EA04AD3001-2-0, Facility TSR Administrative Controls Checklist CH Waste Handling Mode		✓	
EA04AD3001-4-0, Return to Storage or Standby Modes Upon Completion of Waste Handling		✓	
STDJHA-825, CH Underground Area Inspection	✓		

2.1 ABBREVIATIONS AND ACRONYMS

AR	Action Request
CAM	continuous air monitor
CH	contact-handled
CMRO	Central Monitoring Room Operator
HWFP	Hazardous Waste Facility Permit
IH	Industrial Hygiene
IS	Industrial Safety
LCO	Limiting Conditions of Operations
PID	Photoionization Detectors
RIDS	Records Inventory and Disposition Schedules
RWP	Radiological Work Permit
SEC	Site Environmental Compliance
TRU	transuranic
U/G	underground
VOC	volatile organic compounds
WAC	Waste Acceptance Criteria
WHE	Waste Handling Engineer
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3.0 PRECAUTIONS AND LIMITATIONS

3.1 PRECAUTIONS

- Heat stress hazards exist in the U/G. Personnel will follow the heat stress mitigation strategy directed by IH/IS while performing inspection.
- Vapors hazards exist around disposal panels. Personnel will follow the IH Sample Plan/Monitoring per WP 12-IH1022, Sampling for Waste Generated VOCs, and have PID in VOC area.
- Radiological hazards exist in the U/G. Personnel may be exposed to radiological hazards while performing inspections. Personnel will obey all postings and perform work according to radiological controls in the RWP.
- Eye, foot, head, and hand hazards exist in the U/G. Personnel will wear hard hat, safety glasses with side shields, and safety/hard-toed shoes.
- Ground control hazards exist throughout the U/G. Personnel will bar-down scale and bi-fold/barricade areas of concern.
- Pinch point hazards exist. Personnel may be exposed to pinch point hazards while performing tasks. Personnel will maintain situational awareness while walking around equipment and during use of bar-down scale.
- Poor illumination hazards exist while U/G. Personnel may use temporary lighting when working in dimly lit areas or use an additional cap lamp.
- Slips/trips hazards exist while U/G. Personnel will maintain situational awareness while performing inspection.
- Vehicle traffic and heavy equipment hazards exist while U/G. Personnel will wear high visibility vest, ensure travel surface is suitable, and use cap lamp while performing inspection.

3.2 LIMITATIONS

- Liquid-fueled vehicles/equipment shall be controlled as follows:
 - Attended in the Waste Shaft Station when CH Waste is present in the Waste Shaft Station
 - Attended in the Transport Path when CH Waste is present in the Transport Path
 - Attended when within 25 feet from a CH Waste Face
 - Limited to no more than two liquid-fueled vehicles/equipment within 25 feet of a CH Waste Face (LCO 3.3.8)

- Waste containers shall be compliant with the WIPP WAC. (LCO 3.7.1)
- When the ACTIVE PANEL, including the exhaust drift, is occupied, at least one CAM communicating with the CMR is required in the exhaust drift of the active Disposal Panel. Portable air samplers or portable CAMs are used when the CAM communication with the CMR becomes inoperable. The temporary use of portable devices and the return to service of CMR communication are managed under the Radiation Protection Program. (KE 7-5)
- Ground control inspections are conducted routinely, and remedial actions performed for unstable ground conditions by qualified personnel. (KE 11-10)
- The transport path will be inspected for hazardous conditions and obstructions prior to moving CH Waste along the designated path. (KE 11-13)
- The following operational restrictions and interim controls of ESS-2017-02, Evaluation of the Safety of the Situation – Combustible Liquids Temporarily Stored in Proximity to Waste Containers in the Underground, apply for the temporary storage of combustible liquids in the Underground: (ESS-2017-02)
 - No more than two temporary storage locations are allowed at one time.
 - The total quantity of combustible liquids shall not exceed 534 gallons combined at both locations.
 - The two locations shall be greater than 300 feet apart.
 - Temporary storage of combustible liquids shall be prohibited within 200 feet of the CH Waste Face.
 - Temporary storage of combustible liquids shall be prohibited within 200 feet of the Transport Path when CH Waste is present. Temporary storage of liquid combustibles less than 200 feet of the Transport Path is allowed when the liquid is placed behind installed bulkheads.

4.0 PREREQUISITE ACTIONS

- 4.1 **REVIEW** previous inspection results for outstanding ARs and outstanding deficiencies.
- 4.2 **IF** work will be performed in the ACTIVE PANEL, including the exhaust drift,
THEN at least one CAM communicating with the CMR is required in the exhaust drift of the active Disposal Panel. (KE 7-5)
- **IF** CAM communication with CMR is inoperable **OR** becomes inoperable,
THEN portable air samplers or portable CAMs shall be used. (KE 7-5)

5.0 PERFORMANCE

NOTE

1. Sections of this procedure can be performed independently or in any order.
2. Inspections in a Contaminated Area must be performed. Paperwork documenting inspections can be completed via Mine Phone or Telecom in order to maintain a record that can be filed.

5.1 PREOPERATIONAL UNDERGROUND TRU MIXED WASTE DISPOSAL AREA INSPECTIONS

HWFP

5.1.1 **(\$)** IF personnel will be working in an active U/G TRU Mixed Waste Disposal Area, **THEN**, at the start of shift, **INSPECT** area per Attachment 1, Preoperational Underground TRU Mixed Waste Disposal Area Inspections, as follows: **[HWFP Table E-1]**

[A] **ENTER** date and time of inspection in date and time blocks.

[B] **DOCUMENT** results of inspection as:

- (✓) for satisfactory items/conditions
- U for unsatisfactory items/conditions
- NA for not inspected
- Actual value required.

[C] **INITIAL** Performer block.

[D] **IF** any item/condition is unsatisfactory, **THEN PERFORM** the following:

- **DESCRIBE** exact location and nature of deficiency in Remarks section.
- **NOTIFY** WHE of unsatisfactory item/condition.
- **INITIATE** AR.
- **RECORD** AR in Remarks section.

[E] **ENTER** printed name, signature, and initials of Performers when inspection is completed.

- 5.1.2 **IF** a HWFP required inspection becomes delinquent or failed, **THEN PERFORM** the following:
- [A] Immediately **NOTIFY** on-call SEC Representative and CMRO of delinquent or failed inspection.
 - [B] **RESCHEDULE** and **COMPLETE** required inspection.
 - [C] **DOCUMENT** the following, and **SUBMIT** to PermitInspections@wipp.ws within five working days:
 - Inspection document number
 - Description of facility, equipment involved
 - Schedule for inspection
 - Reason(s) why inspection was **NOT** performed or failed
 - Compensatory measures taken to offset negative impacts from **NOT** performing the inspection or equipment **NOT** providing its intended function
 - Actions to prevent further delinquencies
 - [D] WHE, **GO TO** WP 15-GM1002, Issues Management Processing of WIPP Forms, and **ENSURE** a WIPP Form is generated.
 - [E] **SUBMIT** Attachment 1 to Reviewer upon completion of Preoperational Inspection.
- 5.1.3 Reviewer, **PERFORM** the following:
- [A] **REVIEW** Attachment 1 for:
 - Unsatisfactory conditions
 - Corrective actions taken
 - Outstanding or newly generated ARs
 - [B] **INITIAL** in Reviewer block.
 - [C] Upon completion of last inspection documented, **FORWARD** Attachment 1 to WHE for validation.

5.2 PREOPERATIONAL WASTE HANDLING MODE CHECKLIST

- 5.2.1 After equipment preoperational checks are completed, **PERFORM** the following:
- [A] **ENSURE** date has been entered on Attachment 2, Preoperational Waste Handling Mode Checklist.
 - [B] **DOCUMENT** results of inspection as:
 - Initials for satisfactory items/conditions
 - OOS for Out of Service
 - NA for not inspected
 - [C] **ENTER** name, signature, and initials in Performers section.
 - [D] **WHEN** blocks have been completed, **THEN NOTIFY** WHE for mode.
- 5.2.2 WHE or designee, **COMPLETE** applicable block of EA04AD3001-2-0, Facility TSR and Administrative Controls Checklist CH Waste Handling Mode.
- 5.2.3 WHE or designee, **DELIVER** EA04AD3001-2-0 to CMRO, by hand or fax (234-6049). **INITIAL** and **ENTER** time on Attachment 2.
- 5.2.4 WHE or designee, upon completion of Waste Handling activities for shift, **COMPLETE** applicable block of EA04AD3001-4-0, Return to Storage or Standby Modes Upon Completion of Waste Handling, and **DELIVER** to CMRO, by hand or fax (234-6049).
- 5.2.5 Upon completion of last preoperational mode checklist, **FORWARD** Attachment 2 to WHE for validation.

5.3 VALIDATION

5.3.1 WHE, **PERFORM** the following:

- [A] Upon completion of last inspection on Attachment 1, Preoperational Underground TRU Mixed Waste Disposal Area Inspections, and Attachment 2, Preoperational Waste Handling Mode Checklist, **VERIFY** correctness of form.
- [B] **PRINT, SIGN, and DATE** Attachment 2 in Validation section.
- [C] **REVIEW** Attachments 1 and 2 weekly and **FORWARD** completed attachments to Records Coordinator.

HWFP (\$ Attachment 1 – Preoperational Underground TRU Mixed Waste Disposal Area Inspections [HWFP Table E-1]

ITEM/CONDITION	DATE							
	TIME							
ENSURE operable CAM in ACTIVE PANEL.	✓/U							
U/G Work Area Ground Control Inspection satisfactory per WP 04-AU1007 [PAC 5.6.1, KE 11-10]	✓/U/NA*							
Room ventilation rate (minimum 35,000 scfm/42,000 acfm)	Rate (scfm/acfm)							
No evidence of adverse health/safety conditions	✓/U/NA*							
Unobstructed access to exposed face of emplaced containers	✓/U/NA*							
Area free of debris	✓/U/NA*							
No evidence of spills/leaks from containers (no container deterioration)	✓/U/NA*							
Adjacent mine pager phones operational	✓/U/NA*							
U/G phone system operational	✓/U/NA*							
Warning signs posted	✓/U/NA*							
PCB warning signs posted on radiological boundary at the entrance and exhaust side to Active Disposal Room.	✓/U/NA*							
ESS (\$ No temporary storage of combustible liquids are within 200 feet of any CH Waste Face. [ESS-2017-02]	✓/U/NA*							
ESS (\$ No temporary storage of combustible liquids are within 200 feet of the Transport Path unless liquids are placed behind installed bulkheads. [ESS-2017-02]	✓/U/NA*							
TSR (\$ No liquid –fueled vehicles/equipment within 25 feet of the Waste Face. [LCO 3.3.8]	✓/U/NA*							
ENSURE Transport Path is inspected for hazardous conditions and obstructions prior to moving CH Waste along the designated path. [KE 11-13]	✓/U/NA*							
PERFORMER INITIALS	xxxxxx							
REVIEWER INITIALS	xxxxxx							

* ✓ = Satisfactory U = Unsatisfactory NA = Not Inspected

REMARKS: _____

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HWFP (\$) **Attachment 1 – Preoperational Underground TRU Mixed Waste Disposal Area Inspections [HWFP Table E-1]**

Performers enter Printed Name, Signature, and Initials:

Printed Name

Signature

Initials

VALIDATION:

WHE (Print Name) / Signature / Date

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Attachment 2 – Preoperational Waste Handling Mode Checklist

Date:							
52-H-008A Transporter							
52-H-008D Transporter							
52-H-008E Transporter							
52-H-126 6 Ton Forklift							
52-H-127B 6-Ton Forklift							
52-H-127C 6-Ton Forklift							
52-H-007D 7.5-Ton Forklift							
52-H-127D 6-Ton Forklift							
52-H-035B 13-Ton SLB2 Handler							
Push/Pull Devices							
Underground Area Inspection							
Deliver EA04AD3001-2-0 to CMRO requesting WH Mode, WHE or designee/time							

Initials = Satisfactory NA = Not Applicable OOS = Out of Service

REMARKS: _____

Attachment 2 – Preoperational Waste Handling Mode Checklist

Performers enter Printed Name, Signature, and Initials:

Printed Name	Signature	Initials
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VALIDATION: _____ / _____ / _____
WHE (Print Name) Signature Date